

WHAT IS CLAIMED IS:

1. A data processing method comprising steps of:
generating a second database as a duplicate
of a first database allowing access from a program and
after completion of the generation, switching a program
access allowance from the first database to the second
database,

after switching the program access allowance,
storing a history of a processing of the program to the
second database as a processing history and
reorganizing the first database,

after completion of the reorganization of the
first database, subjecting the first database to the
processing based on the processing history stored, and
upon completion of the processing of the
first database according to the processing history
stored, switching the program access allowance from the
second database to the first database.

2. A data processing device comprising:
means for generating a second database as a
duplicate of a first database allowing access from a
program,

means for switching a program access
allowance from the first database to the second
database after completion of the generation,

means for storing a history of a processing
of the program to the second database as a processing
history and reorganizing the first database after

switching the program access allowance,

means for subjecting the first database to the processing based on the processing history stored, after completion of the reorganization of the first database, and

means for switching the program access allowance from the second database to the first database upon completion of the processing of the first database according to the processing history stored.

3. A data processing method comprising steps of:
generating a second database which is a duplicate of a first database allowing access from a program, and

after completion of the generation, switching a program access allowance from the first database to the second database.

4. A data processing method as claimed in claim 3, wherein after switching the program access allowance, the history of the processing of the program to the second database is stored as a processing history and a predetermined processing is executed for the first database.

5. A data processing method as claimed in claim 4, wherein after completion of the predetermined processing to the first database, a processing based on the processing history stored is executed to the first database.

6. A data processing method as claimed in claim

5, wherein upon completion of the processing based on the processing history stored, to the first database, the program access allowance is switched from the second database to the first database.

7. A data processing method as claimed in claim 5, wherein if a predetermined condition is satisfied, the processing based on the stored processing history to the first data base is completed so that the second database is in a quiescent mode and if there is any not processed by the first database among the stored processing history, a processing based on the processing history not processed is executed to the first database.

8. A data processing method as claimed in claim 7, wherein the quiescent mode indicates a mode that temporary storage of access requests is performed during access processing to the first database or the second database by the program and storage in the first database or the second database is stopped.

9. A data processing method as claimed in claim 4, wherein the program processing to the second database and the predetermined processing to the first database are performed in parallel and concurrently.

10. A data processing method as claimed in claim 4, wherein when performing the processing based on the stored processing history to the first database, the processing is performed in parallel and concurrently by a plurality of programs assigned to the key value or

key range contained in the processing history.

11. A data processing device comprising:

means for generating a second database which is a duplicate of a first database allowing access from a program being executed, and

means for switching, after completion of the generation, the access allowance of the program from the first database to the second database.

12. A database processing device as claimed in claim 11 further comprising:

means for storing a history of the program processing to the second database as a processing history after switching the access allowance of the program, and

means for executing a predetermined processing to the first database.

13. A data processing device as claimed in claim 12, further comprising means for performing a processing based on the stored processing history to the first database upon completion of the predetermined processing to the first database.

14. A data processing device as claimed in claim 13, further comprising means for switching the access allowance of the program from the second database to the first database upon completion of the processing based on the stored processing history to the first database.

15. A data processing device as claimed in claim

13, further comprising means for terminating the processing based on the stored processing history to the first database if a predetermined condition is satisfied and setting the second database in the quiescent mode, and if the stored processing history contains one not processed by the first database, performing the processing based on the processing history not processed, to the first database.

16. A data processing device as claimed in claim 15, wherein the quiescent mode indicates a mode that temporary storage of access requests is performed during access processing to the first database or the second database in the program and storage in the first database or the second database is stopped.

17. A data processing device as claimed in claim 12, wherein means for the program processing to the second database and means for the predetermined processing to the first database operate in parallel.

18. A data processing device as claimed in claim 12, wherein when the means for executing the predetermined processing performs the processing based on the stored processing history to the first database, the processing is performed in parallel by a plurality of data processing means assigned to the key value or key range contained in the processing history.

19. A data processing program comprising codes for executing a step for generating a second database which is a duplicate of a first database allowing

- 34 -

access from a program being executed and a step for switching, after completion of the generation, an access allowance of the program from the first database to the second database.